AMENDMENT TO THE CLAIMS

Please amend the claims as follows:

1 . (Currently amended) An isolated and purified peptide of the RY domain having an amino acid sequence of general formula I comprising a sequence of the following amino acids:

x_1- x_2- x_3- x_4- x_1 - x_4 - x_4 - x_3 - x_1 I

x_1 = Phe, Tyr, or any amino acid having a substituted aromatic residue;

x_2 = Glu, Asp, Ser, or any amino acid having a -(CH_2)n - COO residue, wherein n = 0 - 3;

x_3 = Asp, Thr, any aliphatic amino acid or any of amino acids X_4; and

x_4 = Arg, Lys, or any amino acid having a - (CH_2)n - NH_3^+ residue, or a - (CH_2)n - NH - $C(NH_3^+)NH_2$ residue wherein n = 0 - 4

~~and functional equivalents thereof~~.

2. (Original) A peptide according to claim 1, wherein Methionine (Met) is connected to the N-terminal of the sequence of general formula L

3. (Original) A peptide according to claim 1 or 2 wherein in the sequence of general formula I, the sequence is X_4 - X_1- X_4 - X_4 stands for Arg-Tyr-Arg-Arg.

4. (Original) A peptide according to claim 3, wherein the sequence is preceded by X_3 = Arg.

5. (Previously presented) A peptide according to Claim 1, wherein the substituted aromatic residue of X_1 is Phenyl - (CH_2)n -.

6. (Previously presented) A peptide according to Claim 1, wherein the aliphatic amino acid of X_3 is selected among Leu, Ile, Ala, Gly and Val.

7. (Original) Phe-GIu-Leu-Arg-Tyr-Arg-Arg-AIa-Phe.

8. (Original) Phe-Ser-Arg-Arg-Tyr-Arg-Arg-Asp-Phe.

9. (Original) Phe-Glu-Thr-Arg-Phe-Arg-Mg-Thr-Phe.

10. (Currently Amended) A pharmaceutical composition comprising as active ingredient a RY peptide according Claim 1 ~~or functional equivalents thereof~~.

11. (Original) A pharmaceutical composition according to Claim 10, comprising a pharmaceutical acceptable carrier.

12. (Cancelled)

13. (Currently amended) A method for the treatment of disorders of inappropriate activation of apoptosis ~~by a RY-peptide~~ comprising the step of administering a subject in need with ~~or by~~ a pharmaceutical composition according to Claim ~~1~~ 10.

14. (Currently amended) A method for increasing the number of viable cells in a biological tissue ~~by a RY-peptide~~ comprising the step of administering a subject in need ~~or by~~ a pharmaceutical composition according to Claim ~~1~~ 10.

15. (Currently amended) A method for the enhancement for the survival of biological cells ~~by a RY-peptide~~ comprising the step of administering a subject in need ~~or by~~ a pharmaceutical composition according ~~to any of the claims 1 to 11~~ Claim 10.

16. (Withdrawn) A method for the preparation of a RY-peptide of general formula I according to Claim 1, which comprises attaching the corresponding amino acids, one after the other, onto a functionalized resin, by the following steps:

a. ~~sythesising~~ synthesizing the sequence of Fmoc (9-fluorenyl methoxycarbonyl)-N alph, -protected amino acids activated in situ in a suitable synthesizer and coupling same to a preloaded resin, removing the protecting

group and repeating the coupling and deprotecting steps until the entire peptide synthesis has been finalized;

b. cleaving the peptide from the resin and

c. purifying the peptide obtained in step b.

17. (Withdrawn) A method according to claim 16, wherein the synthesizing step is performed by using an ABI (Applied Biosystems U.K.) 433 A synthesizer.

18. (Withdrawn) A method according to Claim 16 or 17, wherein the coupling reagent is HI3TUIHOBt (benzotriazole-N,N,N1,N-tetramethyluronium hexafluorophosphate/N-hydroxybenzotriazole).

19. (Withdrawn) A method according to Claim 16, wherein 3 equivalents of each of the activated amino acids is used in each coupling step.

20. (Withdrawn) A method according to any of Claim 16, wherein the resin is selected among a Wang resin and a 2-chlorotrityl resin.

21. (Cancelled)

22. (Withdrawn) An in vitro assay system for the regulation of cell death by the Bcl-2 family of test compounds, which comprises:

a. transient transfection of cultured cells via electroporation or cationic-lipid mediated transfection by an expression vector, harboring a reporter gene;

b. co-transfecting the reporter gene with a second expression vector, carrying either the death inhibitor or the death inducer genes, thus affecting the cellular apoptotic threshold towards life or death, respectively;

c. performing transfection of cells with a combination of both the death inhibitor and the death inducer genes to examine the activity of each of these two proteins in opposing the death-inhibitory or promoting-effect of the other, respectively;

d. testing the effects of the test compounds as potential modulators of the

activity of the Bcl-2 system, by testing each test compound by one of the following two modes of administration into the cells:

e. 1. small, membrane permeable test compound particles are administered by addition to the extracellular medium;

2. cell membrane-impermeable small test compound particles are administered by electroporation or by liposome-mediated transfection;

f. evaluating the potential of the test compounds to inhibit cell death by measuring their ability to overcome bax-induced death process; and

g. assessing the potential of the test compounds to trigger apoptosis by measuring their ability to induce death by themselves, their activity in counteracting Bc1-2 activity, and/or their effect in augmenting Bax cellular toxicity.

23. (Withdrawn) An in vitro assay according to Claim 22, wherein the test compound is a peptide.

24. (Withdrawn) An in vitro assay according to Claim 23, wherein the peptide may be tested in addition by constructing small peptides into expression vectors which contain DNA sequences, encoding for the desired peptide; said peptide being transfected into cells via electroporation or cationiclipid-mediated transfection.

25. (Withdrawn) An in vitro assay system as defined in Claim 22.